

Appl. No. 10/646,649
Reply to Office action of August 8, 2005

REMARKS

In the Office Action mailed August 8, 2005 by the United States Patent and Trademark Office, the Examiner rejected all pending claims 1-30. Claims 1, 2, 4, 6, 7, 8, 9, 10, and 13 have been amended. Claims 3, 5, 11, 12, 14, 15, 21, and 23-30 have been cancelled without disclaimer or prejudice to the filing of one or more continuation applications based on the subject matter of these claims. After entry of this amendment, 15 claims remain pending (2 independent claims, 13 dependent claims). No new matter has been added. Reconsideration is respectfully requested in light of the above amendments and the following remarks.

I. Claim Rejections – 35 U.S.C. § 112

Claims 4 and 5 stand rejected to under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner states that the phrase “said first adjustable shock absorber” lacks sufficient antecedent basis. Claim 4 has been amended to address this rejection, and claim 5 has been cancelled without prejudice. Applicants therefore respectfully request that the Section 112 rejections be withdrawn.

II. Claim Rejections -- 35 U.S.C. § 102

Claims 1-3, 11, 13, 14, 16, and 19-21 stand rejected to under 35 U.S.C. § 102(b) as being unpatentable over U.S. Pat. No. 4,832,141 (the “Perini reference.”) Claims 1-3, 6-8, 11, 13, 14, 16, and 19-21 stand rejected to under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,478,974 (the “O’Dea reference.”) Claims 1-3, 11, 13, 14, 16, 17, and 19-22 stand rejected to under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,783,089 (the “Hamilton reference.”) Finally, claims 1, 4-6, 9, 10, 13, 14, 16, 18, 20, and 21 stand rejected to under 35 U.S.C. 102(b) as being anticipated by Lech et al. (the “Lech reference.”). All of the foregoing rejections are respectfully traversed with respect to the pending claims.

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A. The Perini Reference

The Perini reference generally relates to a system for computing load in a vehicle based on "air bags" used in connection with the suspension system (see, e.g., Abstract). A conventional height-control valve is used as a control system to directly control the height of the vehicle, and a transducer 27 is used to create a signal responsive to vehicle weight (see, e.g., col. 2, lines 57-64).

The Perini reference does not include each and every element of the independent claims as amended. For example, the Perini reference does not include a controller configured to determine the payload based on both height and pressure information and then transmit the appropriate signal to a compressor in order to level the vehicle as variously recited in the claims. The transducer (27) of Perini is "open loop," and does not impact the adjustment of the suspension system. The Perini reference also does not disclose the display of an over-load warning based on a predetermined value. Accordingly, the pending claims are patentable over the Perini reference.

B. The O'Dea Reference

The O'Dea reference generally relates to a vehicle weight measurement system using a plurality of sensors and an on-board weighing system (see, e.g., Abstract). Weight is determined using force sensor whose signal is processed using a ratio value and an unsprung weight value (see column 3, lines 33-50).

The O'Dea reference does not include each and every element of the independent claims as amended. For example, the O'Dea reference does not disclose a system wherein the payload is determined from both position information and pressure information as recited in the claims. Furthermore, the O'Dea reference does not disclose the display of an overload warning in the event the payload is greater than a predetermined threshold value.

C. The Hamilton Reference

The Hamilton reference is generally directed to a vehicle leveling system using air springs, wherein position switches at each air spring generate signals used to deflate or inflate the air springs as may be appropriate (see, e.g., Abstract). Specifically, the position switches generate a "duty cycle" in accordance with the vertical motion of the vehicle as it is moving, and as the load

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redistributes, and it is this signal that is used to determine the correct signal to send to the air springs (column 2, lines 1-21).

As with the prior references, the Hamilton reference does not include each and every element of the independent claims as amended. For example, the Hamilton reference does not disclose a system wherein the payload is determined from both position information and pressure information as recited in the claims. Furthermore, the O'Dea reference does not disclose the display of an overload warning in the event the payload is greater than a predetermined threshold value.

Furthermore, the Hamilton reference teaches away from the present invention, as it states that the system as conceived "is accomplished without elaborate or expensive position indicators for the vehicle" (column 2, lines 19-21). That is, Hamilton focuses on using simple switches (and the duty cycle of those switches during movement) rather than a position sensor capable of providing the position information required by the claims of the present application. The position switches of the Hamilton reference are not "position sensors" as that phrase is used in the claims as amended.

D. The Lech reference

In general, the Lech reference relates to an apparatus for adjusting the ride of a vehicle in motion (e.g., a backhoe loader, a forklift, etc.) by measuring the load in a hydraulic circuit, then adjusting the pressure in an "accumulator" to accommodate these loads and adjust the ride accordingly.

As the Lech reference is related to improving the ride of a vehicle under transient conditions, rather than leveling and determining the load of the vehicle, the Lech reference does not disclose each and every element of the claim as amended.

For example, as with the previous references, the Lech reference does not disclose a system wherein the payload is determined from both position information and pressure information as recited in the claims. Furthermore, the O'Dea reference does not disclose the leveling of the vehicle, the display of payload, or an overload warning in the event the payload is greater than a predetermined threshold value.

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E. Summary

In accordance with the above remarks, Applicants respectfully request that the Section 102 rejections be withdrawn with respect to the claims as amended.

III. Claim Rejections – 35 U.S.C. §103

Claims 12, 15, 23, 24, and 27-29 stand rejected to under 35 U.S.C. 103(a) as being unpatentable over the Perini reference in view of U.S. Pat. No. 5,167,289 (the “Stevenson reference.”) Claims 12, 15, 23-25, and 27-30 stand rejected to under 35 U.S.C. 103(a) as being unpatentable over the Hamilton reference in view of the Stevenson reference. Claims 23, 24, 26, 28, and 29 stand rejected to under 35 U.S.C. 103(a) as being unpatentable over the Lech reference in view of the Stevenson reference. These rejections are respectfully traversed.

Applicants respectfully submit that, in accordance with the above, none of the cited references, taken alone or in combination, disclose all the claim limitations of at least independent claims. The additional reference cited in connection with the Section 103 arguments, the Stevenson reference, displays an overload warning (“OVER”), but does not include many other elements of the claims as amended, and therefore does not satisfy the many deficiencies of the other cited references.

As detailed above, none of the cited references, taken alone or in combination, disclose a system wherein the payload is determined by a controller from both position information as well as pressure information, and wherein an overload warning is displayed in the event the payload is greater than a predetermined threshold value. Because the cited references cannot form the basis of a prima facie case of obviousness, there is no need at this time to discuss the fact that there would be no suggestion to combine the references as set forth by the Examiner

In accordance with the above, Applicants respectfully submit that the Section 103 rejections should be withdrawn with respect to the pending claims as amended.

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IV. Conclusion

In view of foregoing, Applicants respectfully submit that Examiner's rejections have been overcome, and that the application is in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned at the telephone number set forth below.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge GM Deposit Account No. 07-0960 for any fee which may be due.

Respectfully submitted,



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